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## NOTICE OF ALLOWANCE AND FEE(S) DUE

25944

7590

07/11/2008

OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850 EXAMINER
SHANKAR, VIJAY
ART UNIT PAPER NUMBER

2629 DATE MAILED: 07/11/2008

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,438	04/21/2004	Hayato Nakanishi	119128	7096

TITLE OF INVENTION: ELECTRO-OPTICAL DEVICE, METHOD TO DRIVE THE SAME, AND ELECTRONIC APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	10/14/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where n

appropriate. All further ndicated unless correcte naintenance fee notifica		ng the Patent, advance on herwise in Block 1, by (a	ders and notification a) specifying a new co	of m orresp	aintenance fees woondence address;	rill be and/or	mailed to the current of (b) indicating a separ	correspondence address as ate "FEE ADDRESS" for
	ENCE ADDRESS (Note: Use Bl	ock 1 for any change of address)		Fee(s	s) Transmittal. Thi rs. Each additional	s certif I paper	icate cannot be used fo	domestic mailings of the r any other accompanying t or formal drawing, must
OLIFF & BER P.O. BOX 3208: ALEXANDRIA		I here	Cert eby certify that this s Postal Service w	t <b>ificate</b> is Fee(s	of Mailing or Transn s) Transmittal is being	deposited with the United class mail in an envelope bove, or being facsimile te indicated below.		
	,					· ·	<u>·</u>	(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		ATTO:	RNEY DOCKET NO.	CONFIRMATION NO.
10/828,438	04/21/2004		Hayato Nakanishi				119128	7096
		DEVICE, METHOD TO						
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300		\$0		\$1740	10/14/2008
EXAM		ART UNIT	CLASS-SUBCLASS					
SHANKA	*	2629	345-076000					
. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			2. For printing on the patent front page, list  (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.					
PLEASE NOTE: Unl recordation as set fort (A) NAME OF ASSIG	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	oletion of this form is NO	data will appear on the Tasubstitute for filing (B) RESIDENCE: (C)	he pa g an a NTY	tent. If an assigne ssignment. and STATE OR C	OUNT	TRY)	cument has been filed for
lease check the appropr	iate assignee category or		<u>-</u>					p entity Government
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OTE: The Issue Fee an	d Publication Fee (if rea		d from anyone other th					assignee or other party in
·					Date			
Typed or printed name								
n application. Confiden ubmitting the completed ais form and/or suggesti	tiality is governed by 35 d application form to the ions for reducing this bu. Virginia 22313-1450. DC	U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to th	1.14. This collection in depending upon the interest of the Chief Information O	s esti indivi ifficer	mated to take 12 r dual case. Any co U.S. Patent and '	ninutes mment Traden	to complete, including s on the amount of tim park Office, U.S. Depar	by the USPTO to process) gathering, preparing, and e you require to complete tment of Commerce, P.O. or Patents, P.O. Box 1450,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/828,438 04/21/2004		Hayato Nakanishi	119128	7096	
25944 75	90 07/11/2008		EXAM	INER	
OLIFF & BERRI	DGE, PLC	SHANKAR, VIJAY			
P.O. BOX 320850			ART UNIT	PAPER NUMBER	
ALEXANDRIA, VA 22320-4850			2629		
			DATE MAILED: 07/11/2008		

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 758 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 758 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)
	10/828,438	NAKANISHI ET AL.
Notice of Allowability	Examiner	Art Unit
	VIJAY SHANKAR	2629
	VIJAY SHANKAK	2029
The MAILING DATE of this communication appeal All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this or other appropriate communica GHTS. This application is subjection	application. If not included tion will be mailed in due course. <b>THIS</b>
1. $\square$ This communication is responsive to $2/14/08$ .		
2. The allowed claim(s) is/are <u>1-12</u> .		
<ul> <li>3.  Acknowledgment is made of a claim for foreign priority ur</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> </ul>		
2. Certified copies of the priority documents have	been received in Application No	D
3. Copies of the certified copies of the priority do	cuments have been received in t	his national stage application from the
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	IENT of this application.	
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>		
5. CORRECTED DRAWINGS ( as "replacement sheets") mus	et be submitted.	
(a) $\square$ including changes required by the Notice of Draftspers	on's Patent Drawing Review ( P	TO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the	ne Office action of
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t		
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT		
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5. ☐ Notice of Inform	al Patant Application
<ol> <li>Induce of References Cited (PTO-692)</li> <li>Induce of Profit Profi</li></ol>	6. ☐ Interview Summ	
3. ☐ Information Disclosure Statements (PTO/SB/08),	Paper No./Mail 7. ☐ Examiner's Ame	Date
Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit	8. 🛛 Examiner's Stat	ement of Reasons for Allowance
of Biological Material	9.	
	/VIJAY SHANKAR/ Primary Examiner, Art	Unit 2629

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## **DETAILED ACTION**

### Terminal Disclaimer

1. The terminal disclaimer filed on 2/14/08 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US patent 7,145,530 has been reviewed and is accepted. The terminal disclaimer has been recorded.

## Allowable Subject Matter

- 2. Claims 1-12 are allowed.
- 3. The following is an examiner's statement of reasons for allowance: The terminal disclaimer overcomes the prior arts fails to teach an electro-optical device, comprising: an electro-optical element with a current-based data signal defining a tonal gradation level of pixels, during a first mode in which the data signal is supplied to the data line not through the first switching element, the first switching element is set to be in a non-conductive state while the second switching element is set to be in a conductive state, and during a second mode in which a signal different from the data signal is supplied to the data line through the first switching element, the first switching element is set to be in a conductive state while the second switching element is set to be in a non-conductive state as claimed in Claim 1.

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- 4. The prior arts fails to teach an electro-optical device, comprising: an electrooptical element with a current-based data signal defining a tonal gradation level
  of pixels, supplied to data lines and with a luminance set in response to a driving
  current; during a first mode in which the data signal is supplied to the data line
  not through the switching element, the switching element is set to be in a nonconductive state while the signal transfer line is supplied with a predetermined
  voltage corresponding to a voltage that occurs in the data line when the data line
  is supplied with the data signal defining the lowest tonal gradation level, and
  during a second mode in which a signal different from the data signal is supplied
  to the data line through the switching element, the switching element is set to be
  in a conductive state while the supplying of the predetermined voltage to the
  signal transfer line is stopped as claimed in Claim 3.
- 5. The prior arts fails to teach an method to drive an electro-optical device having an electro-optical element with a current-based data signal defining a tonal gradation level of pixels, and supplied to data lines, and with a luminance set in response to a driving current flowing from a power source voltage to a voltage lower in level than the power source voltage, the method comprising: <a href="mailto:setting.tobe">setting.tobe</a> in a non-conductive state, a first switching element that controls electrical conduction between the data line arranged for respective pixels and a signal transfer line and setting, to a conductive state, a second switching element that controls electrical conduction

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between the power source voltage and the signal transfer line, during a first mode in which the data signal is supplied to the data line not through the first switching element; and setting the first switching element to be in a conductive state and setting the second switching element to be in a non-conductive state during a second mode in which a signal different from the data signal is supplied to the data line through the first switching element as claimed in Claim 8.

6. The prior arts fails to teach an method to drive an electro-optical device having an electro-optical element with a current-based data signal defining a tonal gradation level of pixels, and supplied to data lines and with a luminance set in response to a driving current, the method comprising: setting, to be in a non-conductive state, a switching element that controls electrical conduction between the data line and a signal transfer line, and supplying the signal transfer line with a predetermined voltage corresponding to a voltage that occurs in the data line when the data line is supplied with the data signal defining the lowest tonal gradation level, during a first mode in which the data signal is supplied to the data line arranged for respective pixels, not through the switching element; and setting the switching element to be a conductive state and stopping the supplying of the predetermined voltage to the signal transfer line, during a second mode in which a signal different from the data signal is supplied to the data line through the switching element as claimed in Claim 10.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIJAY SHANKAR whose telephone number is (571)272-7682. The examiner can normally be reached on M-F 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL RAZAVI can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VIJAY SHANKAR/ Primary Examiner, Art Unit 2629

VS

Application Number

Application/Control No.	Applicant(s)/Patent under Reexamination			
10/828,438	NAKANISHI ET AL.			
Examiner	Art Unit			
VLIAY SHANKAR	2629			